

Ackerman, Joyce

From: Ackerman, Joyce
Sent: Wednesday, November 22, 2017 4:55 PM
To: Curtis Stovall - CDPHE; Walker - CDPHE, David; MacGregor - CDPHE, Kelly; jason.king@coag.gov; Henderson, Jerry; martin.ograde@state.co.us; ajkrieger@erieco.gov; fdiehl@erieco.gov; mostholthoff@erieco.gov; khansen@erieco.gov; tbjerkaas@erieco.gov; bfrissell@co.weld.co.us; Dave Folkes; Thomas J. Krasovec; Dave Stewart; Steeler Jon; Piggott, Amelia; O'Reilly, Maureen; Fronczak, David; Ketellapper, Victor; Jenkins, Katherine
Subject: Neuhauser Landfill Site: EPA comments on Draft Drum Removal Work Plan
Attachments: [Untitled].pdf

Dear Mr. Dean and ladies and gentlemen – Attached please find EPA's comments on the Draft Drum Removal Work Plan for the Neuhauser Landfill Site. Please do not hesitate to contact me with any questions or concerns. Thank you for your assistance with this important project. (And Happy Thanksgiving!)

Joyce Ackerman
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Ref: EPR-ER

November 22, 2017

Mr. Richard Dean
Stratus Redtail Ranch, LLC
8480 E. Orchard Road, Suite 1100
Greenwood Village, CO 80111

RE: Comments on Work Plan for Neuhauser Landfill Site

SENT VIA E-MAIL to rdean@stratuscompanies.com

Dear Mr. Dean:

Thank you for submitting the Draft Drum Removal Work Plan dated November 10, 2017, for the Neuhauser Landfill Site (Site). EPA consulted with the State of Colorado regarding the document, and provides the attached comments. They do not include comments on the applicable or relevant and appropriate requirements (ARARs) for this time-critical removal action. Comments on ARARs will be provided in a separate letter.

The EPA Removal Program became involved with the Site in the summer of 2017. EPA was not involved in prior sampling events, did not review prior work plans, and did not conduct oversight of previous investigations at the Site. As the On-Scene Coordinator assigned to this Site, I was on-Site for two days in July 2017 when there were investigations with an EM-61 metal detecting instrument and excavation of some suspect areas to determine if drums were present. However, EPA has not conducted a detailed review of the EM-61 and other geophysical investigations at the Site. It is EPA's understanding that there are data gaps, anomalies that were not investigated, and information from the investigation that was not documented in the report (Reference Curt Stovall e-mail to Dave Stewart dated November 6, 2017). EPA is pleased to include additional geophysical investigations as part of the Work Plan in the AOC; however, EPA is not concluding that this additional investigation is sufficient to identify all locations of buried drums at the Site. Should additional drums be identified on-Site, EPA and the State will coordinate to determine the authorities best suited for the situation.

As you know, the Administrative Order on Consent (AOC) has not yet been signed by all parties, and EPA is providing these comments as a courtesy to expedite beginning work at the Site. Once the AOC is final, a draft Removal Work Plan will be due within 7 days. Incorporating our comments prior to submitting that document may help expedite review and approval of the document.

Please do not hesitate to contact me with any questions at (303) 312-6822 or Ackerman.joyce@epa.gov.

Sincerely,



Joyce Ackerman
On-Scene Coordinator

Attachment

Cc: Curt Stovall – CDPHE
David Walker – CEPHE
Kelly MacGregor - CDPHE
Jason King – Colorado Office of the Attorney General
Jerry Henderson - CDPHE
Martin O'Grady – CDPHE
A.J. Krieger – Town of Erie
Fred Diehl – Town of Erie
R. Martin Ostholthoff – Town of Erie
Katie Hansen – Town of Erie
Todd Bjerkaas – Town of Erie
Ben Frissell – Weld County
David Folkes, – Geosyntec Consultants
Thomas Krasovec – Geosyntec Consultants
David Stewart, Stewart Environmental Consultants
Jonathan Steeler – Senn Visciano Canges P.C.
Amelia Piggott – EPA
Maureen O'Reilly – EPA
David Fronczak – EPA
Victor Ketellapper – EPA
Katherine Jenkins - EPA

Comments on Draft Work Plan

Work Plan

1. Section 2 Site Location, Conditions and History: In the last sentence of the first paragraph on page 2, the word "northwest" should be listed before the word "north." The Denver Regional Landfill is northwest of the Site, and the Old Erie Landfill is north of the Site (based on the location of the Site as shown on Figure 1).
2. Section 2: The narrative quotes a Stewart Environmental report estimating that approximately 100 to 150 drums are buried at the Site, rather than the 1,500 drums indicated in the AOC. EPA has not drawn any conclusions at this time regarding the number of drums which might be located at the Site. This sentence should be deleted.
3. Section 3.1 Contractor Notification and Qualifications -- Pursuant to Paragraph 21 of the AOC, EPA disapproves of using Stewart Environmental as a subcontractor for laboratory services for this removal action. Additional discussion on this comment is provided later in this attachment.
4. Section 4.1 Additional EM Surveying and Test Pitting: As stated in the cover letter, EPA is pleased to include additional geophysical investigations as part of the Work Plan in the AOC; however, EPA is not concluding that this additional investigation is sufficient to identify all locations of buried drums at the Site. EPA will be present to consult on and witness the test pitting of new locations for potential buried drums. The EPA OSC will approve adding newly identified locations of buried drums to the scope of work. Adding any such locations will be a valuable contribution to any future remedial effort at the Site.
5. Section 4.1 Additional EM Surveying and Test Pitting (page 6). The Work Plan references Figure 4 for the location of EM surveying information. However, Figure 4 is the project organization chart. Revise the Work Plan to reference the correct figure.
6. Section 4.2 Drums and Soil to be Removed: The second bullet on the top of page 7 refers to the black sludge and Figure 2. The location of the black sludge identified in Stewart 2017b is approximately 150 feet west of the "Approximate Sludge Removal Area" shown on Figure 2. Figure 2 should be modified to show a more accurate approximate location of the sludge removal area.
7. Section 4.3 Scope of Work: There is a potential of exposing or disturbing debris and/or soil that may contain, or may be contaminated with, asbestos during surface and subsurface soil disturbing activities planned for the Site. This includes but is not limited to activities such as test pitting; construction of access roads, work areas, and security fencing; drum and soil removal; and work area restoration. If debris and/or soil containing or contaminated with asbestos is exposed or disturbed during these activities, it would trigger the requirements of Section 5.5 of the Colorado Regulations Pertaining to Solid Waste Sites and Facilities (Solid Waste Regulations)(6 Code of Colorado Regulations (CCR) 1007-2, Part 1). A plan is needed to identify and address any asbestos exposed during work activities at the Site. In practical terms, the plan should include using a Qualified Project Monitor(s) and/or Colorado Certified Asbestos Building Inspector(s) (Colorado CABIs) on an ongoing basis to look for suspected asbestos containing or contaminated soil or debris during soil disturbing activities on Site. If suspect material is found, the contractor may assume that the material is asbestos and implement the

- plan. A plan must be submitted prior to conducting any soil disturbing activities on Site.
8. Section 4.3 Scope of Work Phase I Site Setup – The Work Plan should include a utility locate as part of the Site setup activities.
 9. Figure 3 - EPA recommends that the phases of drum removal be re-prioritized, with drum removal beginning in the areas where a high number of drums are believed to be located, identified as Phases 2 and 3 on Figure 3.
 10. Section 4.3 Scope of Work – The Work Plan does not address anticipated procedures and location(s) of decontamination of heavy equipment. The Work Plan should be revised to include this information.
 11. Section 4.4 Removal Procedures - With regard to drum removal and staging, there will need to be procedures for determining what drums have similar waste and can be grouped together for sampling purposes. Such procedures will also be needed to avoid staging drums of incompatible waste near each other. Such procedures might include field testing such as hazard-categorization (haz-cattig), visual observations, labels (if any), etc. The Work Plan should include anticipated procedures to be used; it may be necessary to modify these procedures in the field as work progresses and the types of wastes in the drums are observed.
 12. Section 4.4.3 Characterization, Handling, and Disposal of Waste – With regard to sampling of waste in drums and contaminated soils for disposal purposes, it will be necessary to determine in advance what the profile requirements are for the intended disposal facility, e.g., a hazardous waste incinerator or landfill. This should be acknowledged in the Work Plan and more detailed written profile and sampling requirements be submitted in writing to EPA prior to conducting the sampling for disposal purposes.
 13. Section 4.4.3 Characterization, Handling, and Disposal of Waste – Related to the comment above, the EPA OSC may require review of manifests and shipping papers prior to wastes being shipped off-Site.
 14. Section 4.3 and Section 4.4.3 – As required by the AOC, disposal facilities proposed for shipment of waste containing CERCLA hazardous substances must be in compliance with the CERCLA off-Site rule. This applies whether the waste is considered RCRA hazardous waste or non-hazardous waste. The Work Plan should indicate that disposal facilities will be proposed in writing to the EPA OSC in advance of any shipments. Please refer to the AOC for additional requirements regarding Off-Site shipments.
 15. Section 4.4 and elsewhere – With regard to soils, the goal for this EPA removal action is to remove highly contaminated soils that may cause an ongoing release of hazardous substances to groundwater. EPA is not setting a risk-based cleanup level for soils for this removal action. The Work Plan proposes appropriate criteria to use in the field to identify highly impacted soils for removal: soil visibly contaminated by leaking drum or container contents; soil with a strong odor consistent with drum or container contents; and soil with total VOC concentrations of 100 ppm or greater as determined by soil sample head-space screening using an FID.

Some sections of the Work Plan appear to use the criteria of “characteristically hazardous” or “non-hazardous” for soil removal (for example, Sections 4.4.2; 4.4.2.1, 4.4.2.2). These are not the criteria that will be used for soil removal as they are too narrow and would not cover soils which are highly contaminated with hazardous substances but are not included in the definition of RCRA characteristic hazardous wastes. These sections and any others in the Work Plan should be changed to reflect the criteria of visual inspection, odor, and headspace measurements. If unanticipated conditions are encountered in the field, such as different wastes than have been found to date, these criteria may need to be modified.

16. Sections 4.3 and 4.4 – With regard to excavation and stockpiling of soils overlying the drums which do not appear to be impacted, EPA anticipates that such soils will be left on-Site, probably returned to the excavated areas and re-graded for safety and drainage purposes. Prior to this action, sampling data for these stockpiled soils will be provided to the EPA OSC for approval to leave the soils on-Site. The Work Plan should state that such soils are anticipated to remain on-Site, pending approval by EPA.
17. Section 4.4.1 Mobilization, Site Setup and Security (page 8) and Figure 3. The last sentence of the first paragraph refers to Figure 3. The excavation areas shown on Figure 3 deviate considerably from the EM anomaly areas shown on Exhibit A-1 from the NGPRS Geophysical Exploration Report. The excavation areas shown on Figure 3 should be revised to generally coincide with EM anomaly areas shown on Exhibit A-1. Also, the proposed Clean Soil and Impacted Soil stockpile areas shown on Figure 3 overlap some of the EM anomaly areas. Therefore, Stratus should consider relocating the planned stockpile areas to the south of the Phase 2 excavation area.
18. Section 4.4.1.1 Temporary Drum and Soil Staging Areas (page 9). The second paragraph of this subsection of the Work Plan indicates that competent drums and overpacked drums will be placed within the temporary drum staging area. This implies that competent drums will be moved, staged and ultimately disposed as they were found. However, the third paragraph of Section 4.4.2 (page 10) states that drums and/or other containers deemed competent will be placed in an over-pack. Revise the appropriate section of the Work Plan for consistency.
19. Section 4.4.1.1 Temporary Drum and Soil Staging Areas (page 9). If competent drums are to be managed and transported in as found condition, provision should be made to conduct initial removal of soil that may be stuck to the outside of the drum.
20. Section 4.4.2.2 Vertical Extent of Excavation (page 11). The Work Plan states that excavation will not continue below the top of bedrock, if encountered. The Work Plan does not define whether the term top of bedrock means the top of weathered bedrock or top of competent bedrock. This distinction is important because there could be significant quantities of contamination bound to the matrix of the weathered bedrock beneath the drums. The distinction between weathered and competent bedrock can be difficult to make in the field and in part depends upon the type of equipment used for excavation. The scope of work of the removal action does not intend for excavation to continue to significant depths in areas that may have a thick zone of weathered bedrock. Revise the Work Plan to state that the final determination regarding the vertical extent of excavation will be made in coordination with the EPA OSC (similar to the statement made in Section 4.4.2.1). In general, the excavation will not extend

more than a specified number of feet into weathered bedrock and will not extend beyond the point of refusal of the excavation equipment being used.

21. Sections 4.3 and 4.4 – Clarify the anticipated procedures for storage of drums pending disposal, whether in the gated, locked fenced staging area, or in a trailer, or some combination thereof.
22. Sections 4.3. and 4.4 – Provide a description of how soils to be disposed off-Site are anticipated to be containerized, e.g., drums, rolloff boxes, etc. The Work Plan discusses drumming the “black sludge” contaminated soils, but does not provide a description for storage of other soils pending disposal.
23. Section 6. Project Organization – typo for Joyce “Ackerman” and Ackerman.joyce@epa.gov.
24. Section 6 Project Organization (page 13) and Figure 4 and Section 2.1 and Figure 1 of the Quality Assurance Project Plan (QAPP). The description of key project personnel responsibilities must identify which project personnel have the direct authority to immediately stop project work (either in a specific work area or the entire Site) to address health and safety, quality control, or regulatory issues. If there are limitations to a project person’s ability to stop work they must be identified in the Work Plan and QAPP.
25. Section 9 Post Removal Site Control – As stated in the cover letter, EPA is not concluding that this additional investigation is sufficient to identify all locations of buried drums at the Site. Should additional drums be identified on-Site, EPA and the State will coordinate to determine the authorities best suited for the situation.
26. Section 9 Post Removal Site Control (page 15). The reference to “Erie Landfill” should be changed to “Neuhauser Landfill.” CDPHE recently determined that the landfilling operations performed by John Neuhauser, doing business as Sanitation Engineering, were conducted in two separate areas located on the Redtail Ranch property, one immediately south of Old Erie Landfill, and the other immediately south of Denver Regional Landfill. Until recently, the Neuhauser landfilling operations were thought by CDPHE to have occurred within the boundaries of the Old Erie Landfill. The Erie Landfill and Old Erie Landfill are two distinctly different solid waste sites and facilities, with two different certificates of designation. Therefore, the two disposal areas on the Retail Ranch property should be referred to as the Neuhauser Landfill.
27. Section 10 References (page 15). Stewart 2017a was approved by CDPHE with modifications. Therefore, CDPHE’s approval with modifications letter dated May 12, 2017 should also be included in the list of references. Similarly, Stewart 2017b has yet to be approved. CDPHE’s comment letter dated November 15, 2017 regarding Stewart 2017b should also be included in the list of references.
28. List of Acronyms (page IV). Correct errors in the List of Acronyms and throughout the document:
 - AOC – Administrative Settlement Agreement and Order on Consent
 - ARARs – Applicable or Relevant and Appropriate Requirements
 - VOCs – Volatile Organic Compounds

Field Sampling Plan

1. The Field Sampling Plan did not include field duplicates as part of the QA/QC. The Field Sampling Plan should be revised accordingly.
2. Section 2.3 Soil and Sludge Sampling – The introduction suggests that soils and sludges will be sampled in-situ, rather than after being drummed or stockpiled. Clarify the anticipated sampling procedure to obtain representative samples for disposal purposes.
3. Section 2.3.2.2 Sample Collection (for soils) – Where soils are to be analyzed for volatile organic compounds, soil samples should not be composited to avoid loss of volatiles during mixing. The sampling plan should propose either collection and VOC analysis of soils as discrete samples, or a multi-increment sampling strategy where small aliquots of soil are collected, extracted, and the extracts combined for analysis as a composite.
4. Section 2.4 Confirmation Soil Sampling – EPA is not establishing risk-based cleanup standards for soils for this removal action. Nevertheless, confirmation samples should be taken for documentation purposes and to verify that the project goal has been achieved to remove highly contaminated soils that could pose an ongoing source of release of hazardous substances to groundwater.
5. Section 1.2.1 Site Location (page 1): The word “northwest” should be listed before the word “north.” The Denver Regional Landfill is northwest of the Site, and the Old Erie Landfill is north of the Site.
6. Section 1.2.2 Site Background (page 1). The first sentence states that the northern portion of the Site is known as the Erie Landfill, and that drums were accepted for disposal until circa 1968. This sentence should be revised to state that the northern portion of Site is a portion of the Neuhauser Landfill. Additionally, historic records indicate that drums were disposed at the Neuhauser Landfill until May 1969.
7. Section 4.2 (page 21) of Field Sampling Plan (7th bullet). Revise the Field Sampling Plan to clarify that decontaminated sampling equipment does not have to be wrapped in aluminum foil if the sampling equipment is to be reused the same day as per Section 2.3, Step 12 of SOP No. 600.

QAPP

1. Refer to previous comments on the Work Plan regarding: 1) field testing in order to group drums and identify incompatibilities; and 2) data needed for waste profiling for disposal purposes. These comments also apply to the QAPP and should be incorporated.
2. Section 3.1.4 – Second bullet refers to excavated soil and sludge that is deemed “potentially

hazardous.” The soil removal criteria discussed previously in these comments apply to more than just soils that fail the TCLP, and this bullet should be revised. The same comment applies to Section 2.2.4, fifth bullet.

3. Section 3.1.2 Step 1 – State the Problem – The problem statement references buried drums containing hazardous waste. This description is too narrow – it should reference buried drums containing CERCLA hazardous substances (which includes RCRA hazardous wastes).
4. Section 3.1.4 - Where soils are to be analyzed for volatile organic compounds, soil samples should not be composited to avoid loss of volatiles during mixing. The sampling plan should propose either collection and VOC analysis of soils as discrete samples, or a multi-increment sampling strategy where small aliquots of soil are collected, extracted, and the extracts combined for analysis as a composite.
5. Section 3.1.6 – The third bullet refers to a criterion for RCRA hazardous waste characterization limits. The soil removal criteria apply to more than just soils that fail the TCLP, and this bullet should be revised.
6. Tables – Many of the tables only list chemicals that are part of the TCLP analytical procedure. There are additional soil removal criteria and waste profiling requirements in addition to the TCLP. The tables should be revised.
7. Pursuant to Paragraph 21 of the AOC, EPA disapproves of using Stewart Environmental as a subcontractor for laboratory services for this removal action. A review of some of the data packages from the Stewart Environmental laboratory such as the waste and soil samples from 1/10/2017, groundwater samples from 12/12/2016, and groundwater samples from 12/15/2016, show missing information, unclear notations, errors in reporting, and other discrepancies. Some observations on the data packages include but are not limited to the following:
 - No quality control information was provided. Using the National Functional Guidelines for Superfund data usability, the data package would be rejected (unusable) because most of the QA/QC data is missing from the package. Therefore, it is not possible to ascertain the quality or usability of the data results.
 - It appears that notes were added to the waste and soil pdf document after the original laboratory report was written. It appears that the units were not listed in the original report but added at the bottom of the individual analyses in faint lettering, e.g., “All units are ppm.”
 - Laboratory reports for waste and soil – The descriptions of the samples do not match the chain of custody. The depths of the test pits are not correct and the waste sample from a drum is reported as a soil sample from Pit #5 at a 5 to 6 ft depth.
 - The chain of custody states one jar of sample was lost and could not be submitted for the 8270 analysis. The narrative report does not include a description of why the jar of sample was lost or why another jar of sample was not obtained.
 - The ACZ lab report references a solvent barrel from Pit #6, but there is no drum mentioned in the accompanying narrative report regarding a barrel in Pit #6
 - In a different data package provided by Test America from the 2017 Phase 2 report, the report notes that three sample vials submitted by Stewart Environmental were received with headspace bubbles.

Ambient Air Monitoring Plan

1. The Plan should identify the proposed turnaround time for laboratory analysis of SUMMA canister samples. The turnaround time should be sufficiently short to allow corrective actions to be taken if the data indicates unacceptable air emissions are occurring from Site activities.
2. The Plan should state that laboratory results for SUMMA canister samples will be provided to the EPA OSC as soon as received.
3. The Plan should state that air monitoring data will be provided to the EPA OSC on a daily basis, such as providing the daily logs the morning after each day's recorded measurements. Exceedances of the action levels should be reported to the EPA OSC as soon as identified.

Health and Safety Plan

1. Global comment – In previous investigations, only two drums have been sampled at the Site. The 1991 IBM response to EPA's information request indicated that many more types of waste may have been transported and disposed at the Site than just MEK, toluene, MIBK, and trichloroethylene. The 1991 IBM response referenced waste organics, inorganics, solvents, acids, bases, and other liquid waste streams including "cyanide, chromic, oxides, copper, caustics, barium and nitrate salts." The 1991 response provided estimates of the various wastes in terms of gallons believed to be shipped to the landfill in 1968. The H&S plan should take into account the other wastes that may be present at the Site. In addition, there is little to no information on any other wastes that the landfill operator may have accepted and disposed in the 1960s and the H&S plan should have procedures for potentially encountering unknowns. So far, the two drums sampled and the groundwater data show the presence of MEK, toluene, MIBK, TCE, and some other volatiles, but the H&S Plan should include procedures for encountering other wastes.